

# FRESNO, CALIFORNIA

## CLASS SPECIFICATION

### INSTRUMENTATION TECHNICIAN

**FLSA STATUS:**

Non-Exempt

**CLASS SUMMARY:**

The Instrumentation Technician is the first and entry level in a two level Utilities Instrumentation series. Incumbents are responsible for assisting in the installation, alteration, maintenance, repair, and calibration of a variety of process instrumentation equipment utilized in Water or Wastewater Treatment facilities.

The Instrumentation Technician is distinguished from the Instrumentation Specialist, which is responsible for performing journey level process control instrumentation activities.

**TYPICAL CLASS ESSENTIAL DUTIES:** (These duties are a representative sample; position assignments may vary.)

**FRE-  
QUENCY**

1.	Assists in troubleshooting, calibrating, and repairing process control instrumentation which may include: analog, digital, and pneumatic instrumentation, pressure and temperature instruments, various flow meters, dissolved oxygen, suspended solids, conductivity pH/ORP, level transmitters, turbidity meters, chlorine and nitrate analyzers, chemical injection equipment, gas pressure flow and detection, and other related equipment.	Daily 50%
2.	Assists in configuring process and instrumentation diagrams, control loop parameters and discrete logic for programmable logic controllers and distributed control systems.	Weekly 20%
3.	Assists in documenting procedures and readings of process control instrumentation and related equipment such as recording calibration data or sketching schematics of previously or newly installed pneumatic and/or electronic metering or control loops.	Daily 40 – 50%
4.	Reads and interprets wiring diagrams, mechanical drawings, manuals, and specifications.	Daily 20%
5.	Uses and maintains a variety of hand and power tools and bench test equipment related to instrument installation, maintenance, and repair.	Daily 80%
6.	Assists in conducting periodic preventative maintenance inspection of all process control instruments; cleans, lubricates, calibrates, and adjusts as conditions warrant.	Weekly 50%
7.	Assists in laying out, installing, aligning, and placing into service new metering and recording devices; calibrates as required.	Weekly 10%
8.	Performs other duties of a similar nature or level.	As Required

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#### **Training and Experience** (positions in this class typically require):

- One year of experience as an Electronic Technician, or one year performing industrial electrical work, or completion of 15 semester units of electronics or closely related course work from an accredited college, university or vocational training program is required;
- OR
- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

#### **Licensing Requirements** (positions in this class typically require):

- Basic Class C License.

#### **Certification Requirements** will vary depending upon assignment:

- Basic Class C License
- Water Distribution Grade II or Water Treatment Grade II Certificate
- California Water Environment Association Grade I Electrical/Instrumentation Technologist Certification issued by the State of California.

#### **Knowledge** (position requirements at entry):

Knowledge of:

- Methods, practices and equipment used in the maintenance, repair, testing, and adjusting of a variety of process control and monitoring instruments;
- Basic Computer Skills;
- Safety practices and procedures pertaining to process instrumentation equipment and water/wastewater treatment facilities including confined space procedures, lockout/tagout and hazardous environments.

#### **Skills** (position requirements at entry):

Skill in:

- Interpreting and applying applicable laws, codes, and ordinances associated with process instrumentation equipment, water/wastewater treatment, and power generation facilities
- Maintaining and preparing accurate documentation regarding instrument repair work
- Maintaining and implementing on-going preventative maintenance for instrumentation
- Diagnosing mechanical, hydraulic, pneumatic, electrical, and electronic malfunctions in instrumentation, programmable logic controllers, and telemetry systems
- Implementing or performing routine repairs, installations of water system equipment
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, business, organizations, elected and appointed officials, media, etc. sufficient to exchange or convey information, give/receive work direction

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#### **Physical Requirements:**

Positions in this class typically require: feeling, finger dexterity, grasping, hearing, and repetitive motions, seeing, talking, bending, kneeling, lifting, reaching, standing, stooping, walking, pulling and pushing.

Medium Work: Exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects.

Incumbents may be subjected to moving mechanical parts, electrical hazards, vibrations, fumes, odors, dusts, poor ventilation and adverse weather conditions.

#### **Note:**

The above job specification is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the business needs of the department.

#### **Classification History:**

Draft prepared by Fox Lawson & Associates (LM)

Date: 12/2007

Reviewed by the City of Fresno

Date: 5/2008